

**Draft Summary of the Environmental Work Group Meeting  
Oroville Facilities Relicensing (FERC Project No. 2100)  
December 17, 2003**

The Department of Water Resources (DWR) hosted a meeting for the Environmental Work Group (EWG) on December 17, 2003 in Oroville.

A summary of the discussion, decisions made, and action items is provided below. This summary is not intended to be a transcript, analysis of the meeting, or to indicate agreement or disagreement with any of the items summarized, except where expressly stated. The intent is to present a summary for interested parties who could not attend the meeting. The following are attachments to this summary:

Attachment 1	Meeting Agenda
Attachment 2	Meeting Attendees
Attachment 3	Summary of Potential Sensitivity Analysis
Attachment 4	Revised Resource Action Tracking Matrix
Attachment 5	Revised Program Flow Charts
Attachment 6	Narrative Reports: EWG 31, 98, and 104
Attachment 7	SP-T4 Draft Final Report; Vegetation & Habitat Mapping
Attachment 8	Presentation on Vegetation and Habitat Mapping
Attachment 9	Presentation of SP-T4, Task 8
Attachment 10	SP-F10, Task 4A: River Flow Effects on Emigrating Juvenile Salmonids in the Lower Feather River
Attachment 11	SP-F3.2, Task 3A: Final Assessment of Sturgeon Distribution and Habitat Use

**I. Introduction**

Attendees were welcomed to the EWG meeting. Attendees introduced themselves and their affiliations. The desired outcomes of the meeting were discussed as listed on the meeting agenda. The meeting agenda and list of meeting attendees are appended to this summary as Attachments 1 and 2, respectively.

**II. Action Items – November 19, 2003 Environmental Work Group Meeting**

A summary of the November 19, 2003 EWG meeting is posted on the relicensing web site. The Facilitator reviewed the status of action items from that meeting as follows:

<b>Action Item #E114:</b>	Solicit feedback from Andy Atkinson, DFG on EWG 56, 57A, 68A and 103.
<b>Status:</b>	Andy Atkinson reported that he has received the resource actions but has not reviewed them at this time. He will provide his comments to Dave Bogener (DWR).
<b>Action Item #E115:</b>	Provide comments and suggested revisions for program flow charts to Terry Mills. Revise flow charts reflecting comments from EWG.
<b>Status:</b>	Revised flow charts were reviewed later in the meeting. See discussion below.
<b>Action Item #E116:</b>	Provide comments on narrative reports to Terry Mills.
<b>Status:</b>	Terry Mills (DWR) reported that no comments have been received to date but he will continue to accept comments on the narrative reports.
<b>Action Item #E117:</b>	Develop and present a process for comments on reports to be submitted by EWG participants to DWR.

**Status:** Terry Mills reported that DWR is currently developing a process and will discuss it with the EWG when available.

#### **Carryover Item**

**Action Item #E113:** Discuss SP-F15 scope with NOAA Fisheries.  
**Status:** Terry Mills reported that NOAA Fisheries and DWR staff had met and discussed SP-F15.

### **III. Modeling Update**

Curtis Creel, DWR Resource Area Manager for the Engineering and Operations Work Group (EOWG) reported on the progress of the modeling team. He distributed a Summary of Potential Sensitivity Analysis matrix (Attachment 3) and described the scenarios completed to date. The EWG discussed adjusting the river temperature compliance point and Curtis noted that Scenario 10 evaluates various locations downstream of the Thermalito Complex. Terry Mills suggested the formation of a task force to integrate all related proposed resource actions (RAs) that involve flow and temperature. He suggested that the EWG and the EOWG modeling group work together to determine modeling needs and operational constraints. Terry suggested that DWR describe the goals of the task force and convene a meeting early in 2004. He suggested that the task force develop biological water temperature criteria or target ranges for the modelers' use in Scenario 10. The EWG agreed with this approach and Curtis suggested the meeting be scheduled soon so that the modeling team can take advantage of the discussions and incorporate information into their modeling effort.

Curtis described Scenario 22, which will evaluate additional flows down the Low Flow Channel (LFC) in an attempt to adjust water temperatures in the Afterbay complex. He explained that the flows modeled are bookends, not based on biological needs and acknowledged that the modeling team has not consulted with the Recreation and Socioeconomics Work Group (RSWG) to discuss potential effects on recreation. The EWG discussed the potential to use power costs to evaluate the effect on Project economics of increased flows in the LFC.

#### *Task Force Summary*

Michael Manwaring with the consulting team summarized the efforts at the December 11<sup>th</sup> task force meeting focused on fisheries and water quality issues. He explained that the task force reviewed the category 3 RAs to determine if any of them could be re-categorized. He also described an up-coming field trip to evaluate Miocene Dam scheduled for December 22. He mentioned additional fieldwork to evaluate in-channel spawning/rearing habitat enhancement and potential levee breach opportunities to create additional habitat in floodplain areas.

Dave Olson reported on his task force presentation related to SP-F15, Task 4, which introduced a decision support matrix. He noted that the task force was asked for feedback on the default values included in the draft matrix.

Michael Pierce representing Butte County reported on the task force discussion of EWG-20, Re-watering of Ruddy Creek. He explained that the task force conclusion is not to support re-watering the historic creek because it would be of little value for salmonid habitat enhancement. While some wetland habitat may be created with the action, the property is nearly all privately held and public access would be an issue for landowners. Poaching could be a negative result of re-watering and potential mosquito abatement costs to the community could be substantial. He agreed to notify Butte County of the discussion results and suggested that the County would likely decide to focus on other relicensing matters.

Brad Cavallo (DWR) reported on the December 12<sup>th</sup> Hatchery Task Force meeting. He described the plans for spring-run Chinook at the Feather River Hatchery next year that include repeating the early ladder opening to get spring-run fish into the hatchery. The fish will be tagged next year rather than holding them over as was the practice this year. He explained that two of the three reports on SP-F9 would be available to the EWG in February. He also noted that proposed resource actions associated with hatchery operations are under development and should be available for review at the next Hatchery Task Force meeting, scheduled for January 16<sup>th</sup> from 9:30 a.m. to 12:30 p.m. in Sacramento.

Terry Mills suggested another task force meeting be scheduled to discuss remaining fishery and water quality issues. He added that a separate meeting is probably necessary to discuss SP-F15. The next Fisheries Task Force meeting was scheduled for January 16<sup>th</sup> from 1 p.m. to 5 p.m. in Sacramento immediately following the Hatchery Task Force meeting.

#### *Updated Tracking Matrix*

Mike Manwaring with Montgomery Watson Harza (MWH) distributed an updated version of the tracking matrix (Attachment 4) and asked the EWG to review and provide comments back to the task forces. He explained that the matrix includes a new column identifying the narrative report date and he noted any text shown in color reflects a revision to the most current information. Terry Mills clarified the target report dates on the matrix are DWR internal dates and described an internal DWR review process that occurs before EWG distribution. Sharon Stohrer confirmed that the EWG would receive the bioaccumulation report by spring. Wayne Dyok with the consulting team reminded the EWG that the bioaccumulation study includes a two-year data collection effort.

Eric Theiss (NOAA Fisheries) requested EWG-97A be re-categorized from a 3 to a 2 and the EWG briefly discussed the RA before agreeing to the change. Roger Masuda (Butte County) suggested that the categorization system include an indication of what level of support exists in the work group for a particular proposed RA to assist the negotiation process. He suggested it would be valuable for the negotiators to know how much support a proposed RA has to avoid agreeing to, for example, a category 1 RA with little EWG support. Terry Mills explained that the categorization system is based on technical considerations rather than popularity and would provide the negotiators with an objective, science-based appraisal of the proposed RAs.

#### *Flow Charts*

Wayne Dyok (MWH) distributed a set of revised flow charts and supporting documentation (Attachment 5) designed to describe how RAs related to one another and function within the context of programs to meet specific goals. The accompanying spreadsheet documentation is arranged by program and then by geographic area. This revision includes comments and suggestions made at the November EWG meeting.

The set included a third chart that Wayne described as a subset of the first two designed to show the relationships of lake level and flow related RAs. Wayne explained that the RAs on the third chart could be described as the primary drivers for the models and allows for comparisons of RAs within specific areas. He suggested that cross resource RAs from other work groups be added to the charts. The EWG discussed the potential to use the more detailed matrix that was developed several months ago. Terry suggested that DWR review the value of updating that matrix.

Curtis Creel suggested the EWG add frequency to the RAs to indicate if the RA is a one-time event, monthly, seasonal, etc. He also requested the EWG provide specific numbers for the modelers to use in advance of study completion, even if they represented only 'best guesses'

for target numbers to be confirmed with final study results. Terry Mills suggested this discussion occur at the Temperature/Flow Task Force.

### *Narrative Reports*

DWR distributed four narrative reports covering EWG 31, 98, and 104 (Attachment 6). Eric See (DWR) described EWG 31, a proposal for warm water species habitat enhancement in Lake Oroville. The EWG discussed actions currently taken by DWR and discussed the adaptive management aspect of the proposal. Eric noted that any actions taken within the fluctuation zone would be subject to evaluation of effects to cultural resources.

Michael Manwaring reminded the EWG that they had received a presentation on EWG-98 at the November EWG meeting and the also discussed it at the December 11<sup>th</sup> task force meeting. He described some revisions that had been made after several field trips. He noted that the task force had determined that the Ruddy Creek is not a good candidate for habitat restoration and had recommended Butte County investigate DWR's Urban Streams Program to restore Ruddy Creek. He also reported that the land adjacent to the hatchery appears to provide the best potential. Brad Cavallo added that Honcut Creek has limited potential for fall-run Chinook salmon habitat restoration and several obstacles to feasibility including water supply/water rights and private property issues. Eric Theiss disagreed and suggested that if Honcut Creek were restored, salmon would utilize the habitat. Brad Cavallo suggested that the cost/benefit for such a project would be more positive at the hatchery location where water supply is feasible. He estimated the hatchery location could result in a doubling or tripling steelhead rearing habitat. Chuck Hanson (SWC) asked what the Project nexus for this proposal is and asked for clarification regarding the recommendations contained in the narrative report. The EWG discussed riparian rights and local watershed groups formed to address this type of action in other watersheds.

Eric Theiss stated that he would report to NOAA Fisheries management that the options for habitat restoration for the Project include an unnamed channel below the Hatchery, instream side-channels and fish passage. Wayne Dyok asked Eric to define a viable population. Eric suggested the collaborative use a salmon population viability model to determine the appropriate number of fish. Mike Meinz (CDFG) noted that DFG has been trying to restore a coldwater trout fishery on the North Fork Feather River since the 1950s and has been unsuccessful. Wayne clarified that he was asking for a conceptual answer rather than an actual number. Eric Theiss said the model could be run by DWR and the consulting team and the results used as a tool in their evaluation of RAs. Brad Cavallo added potential water temperature manipulations to NOAA's list of options.

Terry Mills asked if, given the discussion of Ruddy Creek contained in the narrative report for EWG 98, is it appropriate to categorize EWG105 as a 5? Michael Pierce asked if they should separate the upper and lower sections with different recommendations. Andy Atkinson (DFG) pointed out that the lower section is slated for development and earthmoving activities have already begun. He added the standing water that would accumulate at the Oroville Wildlife Area (OWA) would provide prime mosquito habitat with resultant high costs for abatement. After discussion, the EWG suggested that Michael Pierce seek clarification on the planning and permitting decisions associated with the Ruddy Creek drainage from the Board of Supervisors and determine the County intentions.

The EWG discussed EWG-104 related to levee setbacks and/or flow changes for habitat enhancement. Brad Cavallo explained that there are several sets of levees within the OWA and the proposal is to breach the ones closest to the Feather River to allow a change in the river meander pattern. Eric Theiss asked if mercury is a concern and Bruce Ross (DWR) responded

that mercury is typically found in the fine portions of the sediments so it is not likely a problem in this instance. Brad added that additional studies on splittail stage/discharge requirements are expected in January.

#### **IV. Study Deliverables and Implementation Updates**

##### ***Reports***

###### ***SP-T4***

Gail Kuenster (DWR) distributed SP-T4 Draft Final Report: Vegetation & Habitat Mapping (Attachment 7) and provided a presentation (Attachment 8). The mapping included the Project lands, a one-mile buffer around the Project boundary and the 100-year floodplain of the Feather River to the confluence with the Sacramento River. She reported that no endangered species were located in the surveyed area however several CNPS listed species were found in the Project area above Lake Oroville. The EWG discussed the use of the mapping in determining riparian vegetation and flow stage relationships and the information that will be provided by PHABSIM. Dave Bogener (DWR) presented results of SP-T4, Task 8 related to wildlife mapping (Attachment 9).

###### ***SP-F10, Task 4A***

Jason Kindropp (DWR) distributed SP-F10, Task 4A: River Flow Effects on Emigrating Juvenile Salmonids in the Lower Feather River (Attachment 10). He reported that the results suggest spring pulse flow may stimulate emigration but it isn't necessary for emigration. For example, the LFC has a constant flow regime yet juvenile salmonids emigrate at the same time every year. Brad Cavallo added that there may be other benefits to pulse flows but we don't have that information. The EWG discussed the results and Eric Theiss requested additional time at the next EWG meeting to provide comments on the report.

###### ***SP-F3.2, Task 3A***

Alicia Seesholtz (DWR) distributed SP-F3.2, Task 3A: Final Assessment of Sturgeon Distribution and Habitat Use (Attachment 11). She reported that no sturgeon were caught or seen and no larvae were found during the sampling period. She noted the sampling started later than desired and will be initiated earlier next year. Chuck Hanson suggested that material included in the report irrelevant to the sturgeon issue should be removed and literature related to the effort to list green sturgeon should be reviewed for applicability. He added that some of the conclusions needed refinement.

#### **V. Next Steps**

The participants agreed that the next few EWG meetings would focus primarily on the review of narrative reports and study reports. The EWG scheduled a Flow/Temperature Task Force meeting for January 21, 2004 at SWRI's Sacramento office from 9 a.m. to 3 p.m. and a follow-up meeting on February 9, 2004 from 9 a.m. to 3 p.m. The next Environmental Work Group meeting is:

Date: January 28, 2004  
Time: 9:00 a.m. – 4:00 p.m.  
Location: Oroville Field Division

##### **Action Items**

The following action items identified by the EWG includes a description of the action, the participant responsible for the action, and due date.

**Action Item #E118:** Determine goal for a Flow/Temperature Task Force involving the EWG and the EOWG modeling team.

**Responsible:** DWR

**Due Date:** January 21, 2004

**Action Item #E119:** Determine value in revising the detailed matrix tool.

**Responsible:** DWR

**Due Date:** January 28, 2004

### **Carryover Items**

**Action Item #E114:** Solicit feedback from Andy Atkinson, DFG on EWG 56, 57A, 68A and 103.

**Responsible:** DWR

**Due Date:** December 17, 2003

**Action Item #E117:** Develop and present a process for comments on reports to be submitted by EWG participants to DWR.

**Responsible:** DWR

**Due Date:** December 17, 2003